

Abstract of the Disclosure

A laser apparatus is disclosed utilizing a laser diode having a reflective back facet and a front facet having a reflectance of less than about 1% for emitting an optical beam at a fundamental frequency along an optical path. A collimating lens is provided for collimating the optical beam into a collimated beam. A transmission grating is optically coupled to receive the collimated beam and returns a portion of the collimated beam back into the laser diode by means of diffraction through lens and the laser diode front facet. The laser diode reflective back facet and the transmission grating form an extended laser cavity. In operation, a substantial portion of the collimated beam is transmitted through the transmission grating for producing the laser output beam propagating along the optical path.